What is claimed is:

1. A sensor system comprising:

a first electrode;

a second electrode proximate to the first electrode to form a gap between the first and second electrodes;

a light waveguide having a first end proximate to the gap; and

a filter proximate to a second end of the light waveguide; and

2. The system of claim 1, further comprising:

an optical enclosure encompassing the first and second electrodes; and

wherein the first end of the light waveguide is proximate to the optical enclosure.

3. The system of claim 2, wherein the gap is an electrical discharge gap.

4. The system of claim 3, further comprising a soot sensing electrode susceptible to soot build-up and is kept clean by the electrical discharge gap.

5. The system of claim 3, wherein the electrical discharge gap is proximate to the optical enclosure.

6. The system of claim 5, wherein the electrical discharge gap can generate light and keep clean an optical surface of the optical enclosure proximate to the first end of the light waveguide.

7. The system of claim 6, wherein the filter is a bandpass filter for at least one wavelength.

8. The system of claim 7, further comprising a light intensity indicator connected to the filter.

9. The system of claim 8, further comprising an enclosure encompassing the first and second electrodes.

10. The system of claim 9, wherein the gap can provide a micro glow discharge within and about the gap.

11. The system of claim 10, wherein the filter comprises at least one interference filter.

12. The system of claim 10, wherein the filter is a Fabry-

Perot interference filter.

13. The system of claim 10, further comprising a particulate matter filter connected to an input of the enclosure.

14. The system of claim 13, wherein the particulate matter filter is connected to a combustion exhaust system.

15. The system of claim 13, further comprising a spark-plug-like package wherein the package encloses the particulate matter filter, the first and second electrodes, and the first end of the light waveguide.

16. The system of claim 15, wherein the spark-plug-like package is connected to an exhaust system.

17. A sensor system comprising:

a first electrode;

a second electrode proximate to the first electrode to form a gap between the first and second electrodes;

a light waveguide having a first end optically connected to the gap and having a second end; and

a spectrometer optically connected to the second end of the light waveguide.

18. The system of claim 17, wherein the gap is an electrical discharge gap.

19. The system of claim 18, wherein the gap is a micro discharge gap.

20. The system of claim 19, wherein the gap is a micro glow discharge gap.

21. The system of claim 18, wherein the spectrometer comprises an optical grating optically coupled to the second end of the light waveguide.

22. The system of claim 21, wherein the spectrometer further comprises a light detector optically coupled to the optical grating.

23. The system of claim 22, further comprising a particulate matter filter having an output proximate to the gap.

24. The system of claim 23, wherein the particulate matter filter has an input connected to an exhaust system.

25. A means for sensing comprising:

means for providing an electrical discharge;

means for coupling a fluid to a vicinity of the means for providing an electrical discharge; and

means for analyzing light optically coupled to the means for providing an electrical discharge.

26. The means of claim 25, wherein the electrical discharge is a micro glow discharge.

27. The means of claim 26, wherein the means for analyzing light comprises a spectrometer.

28. The means of claim 26, wherein the means for analyzing light comprises a Fabry-Perot filter.

29. The means of claim 26, wherein the means for analyzing light comprises:

at least one filter;

at least one light detector coupled to the at least one filter; and

a processor connected to the at least one light detector.

30. A method for detecting a fluid, comprising:

providing an electrical discharge;

conveying a fluid to the electrical discharge; and

analyzing light from the electrical discharge.

31. The method of claim 30, wherein the electrical discharge is a micro discharge.

32. The method of claim 31, wherein the analyzing light comprises detecting intensities of various wavelengths.

33. The method of claim 32, wherein the electrical discharge is a glow discharge.

34. The method of claim 32, wherein the detecting intensities of various wavelengths comprises frequency modulation via an active Fabry-Perot filter.

35. The method of claim 32, wherein the detecting intensities of various wavelengths is performed in part with a spectrometer.

36. The method of claim 32, wherein the fluid effectively does not comprise a nobel gas.

37. The method of claim 36, wherein the fluid is of a group including indoor air, outdoor air, industrial process fluid, combustion exhaust, fluid having particulate matter which may obscure light from the electrical discharge to a light detecting device of the analyzing light from the electrical discharge.

38. The method of claim 37, further comprising analyzing the fluid for its chemical composition.

39. The method of claim 38, further comprising placing the electrical discharge in a manner to emit light and keep clean an optical surface needed for light transmission to the light detecting device.

40. The system of claim 1, wherein the filter is an optical filter positioned between the gap and a photo-detector on one or both ends of the light waveguide which is two or more optical fibers.

41. The system of claim 4, wherein the soot sensing electrode susceptible to soot build-up is kept clean by a discharge plasma of the gap or by a second gap, wherein the discharge plasma is positioned upstream of the filter and otherwise the discharge plasma for a spectral analysis is positioned down stream of the filter.

42. The system of claim 17, wherein the spectrometer is a spectral analysis device having a plurality of optical filters and an optical spectrometer optically connected to the second end of the light waveguide.